

GONCHAROV, V.I., kand.med.nauk

Treatment of functional disorders in pulmonary tuberculosis.  
Probl. tub. 41 no.10:49-53 '63. (MIRA 17:9)

1. Iz kliniki legochnogo tuberkuleza (zav. - kand. med.nauk V.K. Dargevich) Instituta meditsinskoy klimatologii i klimatoterapii imeni Sechenova (dir. B.V. Bogutskiy).

Goncharov, V. I.

USSR/ Engineering - Gear Rims

Card 1/1 Pub. 128 - 10/33

Authors : Goncharov, V. I.

Title : Working large gear wheels

Periodical : Vest. mash. 36/1, 35-38, Jan 1956

Abstract : Devices, technological processes and methods used in laying out and milling teeth on large gear wheels at the Kolomenski heavy machine construction plant, are discussed and described. Drawings and diagrams showing several methods of marking, jig boring, checking and milling gear-rims with end and disc cutters, are given. Illustration; drawings; diagrams; table.

Institution : .....

Submitted : .....

GONCHAROV, V.I.

Some results of the competition for designing and introducing  
new equipment. Priborostroenie no.10:28-30 0 '58. (MIRA 11:10)

1. Chlen gorodskoy konkursnoy komissii Leningradskogo oblastnogo  
nauchno-tekhnicheskogo obshchestva Priborprom.  
(Measuring instruments)

25(5)

AUTHOR:

Goncharov, V.I., Engineer

SOV/117-59-2-14/27

TITLE:

Experience in the Introduction of the Group Machining of Parts in Instrument and Equipment Construction (Opyt vnedreniya gruppovoy obrabotki detaley v priboro - i apparatostroyenii)

PERIODICAL:

Mashinostroitel', 1959, Nr 2, pp 23-25 (USSR)

ABSTRACT:

The opinion that automation and mechanization of work processes can not be implemented in small-scale serial production was refuted by the work of a scientific research Institute, and eight instrument construction plants of the Leningrad Sovnarkhoz in 1957-1958. A considerable increase in production was secured, and the number of nomenclatures was reduced 5.5 times. The introduction of the group method of machining comprised about 70,000 parts, which were broken down into 425 groups characterized by geometrical similarity,

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SOV/117-59-2-14/27

Experience in the Introduction of the Group Machining of Parts in  
in Instrument and Equipment Construction

and consequently by similarity of technological process of machining. The author presents and explains a table on the sequence of preparatory work for converting production to the group method. There is 1 table and 1 diagram.

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2 (6)

AUTHOR:

Goncharov, V. I., Engineer

SOV/119-59-8-8/15

TITLE:

Standardization Prerequisites for Rapid Mastering of New Products in Instrument Building

PERIODICAL:

Priborostroyeniye, 1959, Nr 8, pp 22-25 (USSR)

ABSTRACT:

In the case of the metals at present employed for the planning and design of new instruments, the use of standardized parts, units, and blocks is not provided for. On the basis of table 1, in which the large number of radiotechnical parts and materials used in some instrument-factories, the necessity of introducing individually constructed units is stressed. The introduction of such units took a long time in the radioindustry, and the diagram in figure 1 shows the reduction of work caused by the introduction of individually constructed units. Thus, within a period of from 5 to 6 and more years, the energy expended dropped down to 6 to 12 %. Further, the analysis of many instruments and apparatus showed that 40 to 60 % standardized parts and only 10 % special parts would have to be used. Suggestions are then made in five points for the standardization of constructional elements in instruments and apparatus. Further, the technological aspect of the problem is investigated, and the diagram in figure 2 shows

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Standardization Prerequisites for Rapid Mastering of New Products in Instrument Building SOV/119-59-8-8/15

the reduction of the work expended in some instrument factories. In the summary, which is given at the end, the necessity of introducing a standardization such as is described above in apparatus-instrument building in the course of general automation is stressed, and mention is made of S. P. Mitrofanov, who was awarded the Lenin Prize and who introduced the method of "group technology." There are 2 figures and 2 tables.

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S/119/60/000/010/012/014  
B012/B063

AUTHORS: Bulovskiy, P. I., Doctor of Technical Sciences,  
Goncharov, V. I., Engineer

TITLE: Scientific-technical Conference on the Advanced Technology  
of Instrument Construction

PERIODICAL: Priborostroyeniye, 1960, No. 10, pp. 27 - 28

TEXT: The 1-ya Leningradskaya nauchno-tekhnicheskaya konferentsiya po progressivnoy tekhnologii (First Leningrad Scientific-technical Conference on Advanced Technology) was held from April 11 to 14, 1960. It was organized by the Leningradskoye oblastnoye pravleniye NTO Pri-  
borprom (Leningrad oblast' Board of the NTO Priborprom) and the Leningradskiy dom nauchno-tekhnicheskoy propagandy (Leningrad House of Scientific and Technical Propaganda). It was attended by 452 representatives of 180 organizations from 36 cities of the USSR, and 20 lectures were delivered. Engineer V. Ya. Nazarov spoke about the cooperation between design offices in the instrument-building industry for the purpose of developing and introducing an advanced technology. Engineer

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Scientific-technical Conference on the  
Advanced Technology of Instrument  
Construction

S/119/60/000/010/012/014  
B012/B063

V. I. Goncharov spoke about experience gathered with the automation<sup>W</sup> of manufacturing processes in the instrument-building industry on the basis of a group technology. A. I. Neymark, Doctor of Technical Sciences, gave a report on the use of production lines in this branch of industry. Engineer A. S. Smirnov's lecture dealt with "Standardization as a Pre-requisite to the Development of Technological Constructions".

V. M. Bogdanov gave a report on practical experience gathered in the mechanization and automation of the production and assembly of some structural elements of small electric motors. N. N. Vasil'yev spoke about experience gathered in the mechanization of the production of instrument parts in small series. Engineer Z. G. Mednikov held a lecture on the experience gathered in the production of blanks by a wide application of an advanced technology. Engineer N. G. Dubrovin spoke about the industrial application of the group method in cold-pressing and drop forging. Engineer D. G. Selivanov spoke about the effect of the construction of plastic parts on the accuracy of their dimensions. P. D. Yermolayev stressed the great advantages of group production in pressure shaping. D. A. Vayntraub, Candidate of Technical Sciences,

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Scientific-technical Conference on the S/119/60/000/010/012/014  
Advanced Technology of Instrument Construction B012/B063

reported on the experience gathered with the increase of accuracy and performance in cold-pressing in the instrument-building industry. Engineer B. A. Maksiminikh spoke about the production of improved fluxes and solders for soldering metals in a great variety of combinations. Engineer M. A. Trzhetsyak spoke about the characteristics of element construction and the technical and economic indices of automatic machines. P. I. Bulovskiy, Doctor of Technical Sciences, dealt with problems of assembly work in the instrument-building industry. Yu. G. Shneyder, Candidate of Technical Sciences, spoke about the behavior of parts worked on the basis of plastic deformation during operation. Engineer V. A. Guzhov reported on the use of ultrasonic waves for the removal of fat, mechanical impurities, solid coatings, and corrosion products from workpieces. Engineer V. A. Khrul'kov and Engineer Ya. B. Flekser held a lecture on the treatment of permanent magnets. Engineer A. K. Monakov and Engineer A. N. Lukichev spoke about the interchangeability of parts and the assembly of instruments. A resolution adopted by the Conference stressed the great importance of the further development of the technology of instrument construction and gave proper recommendations to producers, institutes, the LSNKh, and the Gosplan USSR.

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GONCHAROV, V. I.

"Experiences in automating production processes on the basis of group technology"

Paper presented at the Second International Measurements and Instruments Conference, (IMEKO), Budapest, 25 June - 1 July 1961.

GLUSHENKOVA, Ye.V.; LIYEVA, V.Yu.; SEMENOV, S.S.; ZABRODKIN, A.G.;  
~~GONCHAROV, V.I.~~; KALASHNIKOVA, Ye.B.

Adhesive resins from shale phenols of nonalkaline separation.  
Trudy VNIIT no.1283-89 '63. (MIRA 18:11)

YEFIMOV, V.V.; GONCHAROV, V.M.; FERANIDI, K.I.; TROITSKIY, Yu.L.

Hole boring by means of electric core drills with flushing in  
two Karaganda Basin mines. Ugol' 40 no.12:61-62 D '65.

(MIRA 18:12)

1. Karagandinskiy nauchno-issledovatel'skiy ugol'nyy institut.

MURZIN, Leonid Gavrilovich; GONCHAROV, Viktor Mikhaylovich; GONCHAROV,  
S.F., kand.tekhn.nauk, red.; VERINA, G.P., tekhn.red.

[Fuel, oil, water; for diesel locomotives] Toplivo, smaska, voda;  
dlia teplovozov. Moskva, Gos.transp.zhel-dor.izd-vo, 1959.  
127 p. (MIRA 12:9)

(Diesel locomotives--Maintenance and repair)

GONCHAROV, V.M., inzh.; LOBANOV, V.V., inzh.; IZAKSON, G.M., otv.

za vypusk

[Economic use of lubricants for locomotive axles] Ekonomia  
osevykh masel na parovozakh. Moskva, TSentr.dom tekhn.  
zhel-dor.transp., 1959. 32 p. (Radiolektsiia, no.2 (74)).  
(MIRA 14:2)

(Locomotives--Lubrication)

GONCHAROV, Viktor Mikhaylovich; MURZIN, Leonid Gavrilovich; MIRONOV,  
M.I., inzh., retsenzent; BLIDCHENKO, I.F., inzh., retsenzent;  
MOSKVIN, G.N., inzh., retsenzent; SOBAKIN, V.V., inzh., red.;  
USENKO, L.D., tekhn. red.

[Fuel, lubricants, and water] Toplivo, smazka, voda. Izd.2., perer.  
i dop. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soob-  
shcheniia, 1961. 158 p. (MIRA 14:12)  
(Railroads—Equipment and supplies)

VORONOV, Nikolay Mikhaylovich; BLIDCHENKO, Ignatiy Fedorovich;  
~~GONCHAROV, Viktor Mikhaylovich~~; LOBANOV, Vasiliy  
Vasil'yevich; MERKUR'YEV, Gennadiy Dmitriyevich;  
BLAGOVIDOV, I.F., kand. tekhn. nauk, retsenzent; EMINOV,  
Ye.A., inzh., retsenzent; GROMOV, G.N., inzh., retsenzent;  
LOSIKOV, B.V., prof., red.; SOBAKIN, V.V., inzh., red.;  
MEDVEDEVA, M.A., tekhn. red.

[Petroleum fuel and lubricants in railroad transportation;  
handbook] Neftianoe toplivo i smazochnye materialy na  
zheleznodorozhnom transporte; spravochnik. Moskva, Trans-  
zheldorizdat, 1962. 322 p. (MIRA 16:6)

(Petroleum products) (Railroads--Fuel)

BELYAYEV, V.G.; VEDERNIKOV, I.I.; GONCHAROV, V.N.; PATEYEV, A.Kh.;  
RUMYANTSEVA, M.B., red.; FORMALINA, Ye.A., tekhn. red.

[Using high-frequency current for defrosting frozen sprat  
briquets] Defrostatsiia briketov morozhenoi kil'ki tokom  
promyshlennoi chastoty. Moskva, Izd-vo zhurnala "Rybnoe  
khoziaistvo" VNIRO, 1962. 21 p. (MIRA 17:3)

1. Sotrudniki Kaspiyskogo nauchno-issledovatel'skogo in-  
stituta morskogo rybnogo khozyaystva i okeanografii, Astrakhan'  
(for Belyayev, Vedernikov).

GONCHAROV, Vasilii Nikandrovich

[Propaganda of economic knowledge] Propaganda ekonomicheskikh znaniy. Barnaul, Altaiskoe knizhnoe izd-vo, 1963. 54 p. (MIRA 17:9)

GONCHAROV, V. N.

"Mechanism of a Uniform Turbulent Current Directed by a Channel Bed (According to Data of an Experiment)," Trudy Energet Instituta imeni I. G. Yes'mana, Vol VII, 1946 (49-64).  
(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

GONCHAROV, V.M.; LAPSHIN, G.H., redaktor; ZABRODINA, A.A., tekhnicheskiiy redaktor

[Uniform turbulent flow] Ravnomerlyi turbulentnyy potok. Leningrad, Gos.energ.isd-vo, 1951. 145 p. (MLRA 8:11)  
(Turbulence) (Hydrodynamics)

GONCHAROV, Vitaliy Nikolayevich, professor, doktor tekhnicheskikh nauk;  
CHEBOTAREV, A.I., redaktor; SHATILINA, M.K., redaktor; SOLOVEYCHIK,  
A.A., tekhnicheskii redaktor; BRAYNINA, M.I., tekhnicheskii  
redaktor.

[Principles of the dynamics of river-bed flow] Osnovy dinamiki  
ruslovykh potokov. Leningrad, Gidrometeorologicheskoe izd-vo,  
1954. 451 p. (MLRA 7:12)  
(Hydraulics)

GONCHAROV, V.N.; POLTAVTSEV, V.I.

River bed deformations arising from the construction of reservoirs.  
Meteor. i gidrol. no. 5:44-50 My '56. (MLRA 9:8)  
(Rivers) (Reservoirs)

GONICHAROV, V. N.

3(4)  
 NAME: GONICHAROV, V. N.  
 Moscow, University. Geograficheskii Institut  
 Vostochnykh Sibirskikh Universiteta (Moscow) [Moscow] Institute  
 of Eastern Siberian Studies, 1957. 211 p. 2,400 copies printed.  
 Author: G. V. Gonicharov and L. B. Murav'yev; Editor: G. V. Gonicharov.

Summary: This book is intended for hydrologists and geographers.  
 It contains a collection of articles on the hydrology of the  
 USSR, dedicated to Professor V. V. Khlumov, Doctor of Tech-  
 nical Sciences. Among the topics discussed are: 1) the effect  
 of the structure of the river bed on the flow of water; 2) the effect  
 of the structure of the river bed on the flow of water; 3) the effect  
 of the structure of the river bed on the flow of water; 4) the effect  
 of the structure of the river bed on the flow of water; 5) the effect  
 of the structure of the river bed on the flow of water; 6) the effect  
 of the structure of the river bed on the flow of water; 7) the effect  
 of the structure of the river bed on the flow of water.

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Effect of agricultural practices on hydrology, and others. The  
 discussions are accompanied by maps, graphs, and tables illustrat-  
 ing the present or long-term hydrology of the USSR. References  
 accompany each article.

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FEDOROV, Vladimir Vladimirovich, dotsent, k.nd.tekhn.nauk; GONCHAROV,  
V.M., prof., retsenzent; ZERNOV, S.A., inzh., retsenzent;  
DOMANITSKIY, A.P., red.; VOLCHOK, K.M., tekhn.red.

[Hydrology and investigation of waters] Gidrologiia i vodnye  
izyskania. Leningrad, Izd-vo "Rechnoi transport," Leningr.  
otd-nie, 1960. 344 p. (MIRA 13:10)  
(Hydrology--Research)

GONCHAROV, Vitaliy Nikolayevich; PROSKURYAKOV, B.V., otv. red.; SHATILINA,  
M.K., red.; BRAYNINA, M.I., tekhn. red.

[Dynamics of channel streams] Dinamika ruslovykh potokov. Lenin-  
grad, Gidrometeoizdat, 1962. 373 p. (MIRA 15:7)  
(Stream measurement)

DOMBROVSKIY, Oleg Ivanovich; SHCHEPINSKIY, Askol'd Aleksandrovich;  
DUBLYANSKIY, Viktor Nikolayevich; GONCHAROV, Vladilen,  
Petrovich; IVANOV, Boris Nikolayevich, kand. geogr. nauk;  
SOLOMONIK, E.I., kand. ist. nauk, obshchestvennyy red.;  
YARMYSH, Yu., red.; ISUPOVA, N., tekhn. red.

[How secrets are revealed; sketches on Krasnopeschernaya]  
Kak raskryvaiutsia tainy; ocherki o Krasnykh peshcherakh.  
Simferopol', Krymizdat, 1962. 108 p. (MIRA 15:11)  
(Crimea--Caves)

~~DonCHAROV, V.P.~~

N.N.Pirogov's theory of real gases. Ist.i metod.est.nauk  
no.1:89-97 '60. (MIRA 14:10)  
(Gases, Kinetic theory of)

LUTOSHKIN, G.S.; YERMILOV, V.I.; DEMIN, A.V.; GONCHAROV, V.P.

Hydraulic fracturing in gas wells and its future uses. Gaz. prom.  
5 no.5:1-6 My '60. (MIRA 14:11)  
(Gas wells--Hydraulic fracturing)

GONCHAROV, V.P.

Hydraulic fracturing techniques and equipment for oil, injection, and gas wells in Paleozoic sediments in the Volga Valley portions of Saratov and Stalingrad Provinces. Trudy VNIGNI no.28:178-193 '60. (MIRA 14:4)

1. Nizhne-Volzskiy filial Vsesoyuznogo nauchno-issledovatel'skogo geologorazvedochnogo neftyanogo instituta.  
(Volga Valley—Oil wells—Hydraulic fracturing)

ZAKRYTYY, M.I.; GONCHAROV, V.P.; MINEYEVA, I.D.

Exclusion of bottom waters in oil wells of the Sokolovogorskiy  
gas and oil fields. Biul. tekhn.-ekon. inform. Gos. nauch.-  
issl. inst. nauch. i tekhn. inform. 17 no.3:21-23 '64.

(MIRA 17:9)

GONCHAROV, V.P.

Seminar on the use of mathematical logic in engineering (1959-1960).  
Avtom. i telem. 22 no.2:292-294 F '61. (MIRA 14:4)  
(Automatic control—Congresses)

GONCHAROV, V.P.; GORSHKOV, A.K.; BABAYAN, A.I.

Hydraulic fracturing in gas wells. Gaz. delo no.5:10-12 '65.  
(MIRA 18:6)

1. Nizhnevolzhskiy nauchno-issledovatel'skiy institut geologii i  
geofiziki.

16.9500

77490  
SOV/103-21-1-21/22

AUTHOR:

~~Goncharov, V. P.~~

TITLE:

Chronicle. Seminar on Technical Applications of  
Mathematical Logic (1958-1959)

PERIODICAL:

Avtomatika i telemekhanika, 1960, Vol 21, Nr 1, pp  
145-148, (USSR)

ABSTRACT:

The seminar took place in the autumn semester, 1958,  
and in the spring semester, 1959, under the supervision  
of supernumerary professor V. I. Shestakov. 11 papers  
were discussed. In a paper, "Concerning the Application  
of Certain Logic Operators for the Analysis and  
Synthesis of Systems Containing Differential Loops,"  
A. D. Talantsev presented quite a new logic-algebraic  
method for investigating the systems with differential  
loops. The second paper presented by A. D. Talantsev  
was "Concerning the Analysis and Synthesis of Certain  
Electrical Circuit Using Special Logic Operators."

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Chronicle. Seminar on Technical Applications  
of Mathematical Logic (1958-1959)

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The author derived a method of resolution of  $dF(x_1, x_2, \dots, x_n)$ , where  $F$  is an arbitrary Boolean function of  $n$  variables. G. N. Povarov presented a paper "Concerning the Group Invariant of Boolean Functions." In this paper the group  $\mathcal{T}$  was investigated, which transforms single-type Boolean Functions into other functions of the same type. In the second paper of this author, "Abstract Algebraic Theory of Cumulative Networks," the G. N. Povarov cumulative theory of networks is explained. This theory serves the analysis of interaction of elements of control circuits. It is shown that the cumulative theory of networks permits generalization of results obtained by other authors. G. N. Povarov gave a paper on "Events and Judgements in Connection With Logic Problems." V. P. Goncharov outlined the paper by Zemanek "Solution of Switching Algebra Equations." Several expressions obtained by Zemanek were discussed. This theory is probably the first attempt to give algebraic representation to the general solution of the Boolean

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Chronicle. Seminar on Technical Applications  
of Mathematical Logic (1958-1959)

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algebra equation. Yu. L. Sagalovich gave a lecture, "The Number of Types of Symmetry of Contact (1,k)-Terminal Networks." Using methods of group representation the number  $N_{n,k}$  is obtained of types (1,k)-terminal networks of n variables. B. Yu. Pil'chak discussed the problem, "Concerning the Synthesis of Quasi-Nonrepetitive Contact Circuits." V. D. Kazakov discussed "Determining Maximum Number of Simple Implications of an Arbitrary Symmetrical Logic Function of n-Variables." V. R. Telesnin and B. Ya. Falevich described the new contactless circuits for the synthesis of which mathematical logic is used. V. R. Telesnin presented a study, "The Use of Magnetic Matrices for Data Processing." B. Ya. Falevich presented a paper, "An Electronic Machine for Playing the 'Wolf and Sheep game.'" An algorithm of this game was given. The activities of the seminar before October 1958 are explained in Avtomatika i telemekhanika Vol 18, Nr 10, 1957 and Vol 20, Nr 1, 1959.

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POPTSOV, Nikolay Petrovich; POTEMKIN, V.V., dotsent, otv.red.; GONCHAROV,  
V.P., red.; KAZAKOV, A.I., tekhn.red.

[Principles of modern physics; methods handbook for fourth-course  
correspondence students of philosophy faculties at state  
universities] Osnovy sovremennoi fiziki; uchebno-metodicheskoe  
posobie dlia studentov-zaochnikov IV kursa filosofskikh fakul'te-  
tov gosudarstvennykh universitetov. Izd.2., ispr. i dop. Lenin-  
grad, Izd-vo Leningr.univ., 1960. 119 p.

(MIRA 14:2)

(Physics--Philosophy)

3(9)

AUTHOR:

Goncharov, V. P.

SOV/20-121-5-17/50

TITLE:

New Data on the Topography of the Bottom of the Black Sea  
(Novyye dannyye o rel'yefe dna Chernogo morya)

PERIODICAL:

Doklady Akademii nauk SSSR, Vol 121, Nr 5,  
pp 830 - 833 (USSR)

ABSTRACT:

Hitherto it has been assumed that the topography of the bottom of the Black Sea is known sufficiently well. But this opinion is by far not justified. This paper uses the data obtained by means of the self-recording sounding device ~~REL~~-5 of the expedition ship "Akademik S.Vavilov", mainly in 1956 and partly in 1957. The results of these expeditions not only add to the precision of previously obtained data, but they also supply entirely new data. This paper describes some of the most interesting contours of the Bottom of the Black Sea, and attention is concentrated on the least investigated parts of the continental side.

Profile I extending from Kherson ; to

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New Data on the Topography of the Bottom of the  
Black Sea

SOV/20-121-5-17/50

**Inebalu** intersects the submerged continuation of the Crimea mountains in a distance of 35 km from the shore. Profile II extending from Yalta to Gelendzhik conveys an idea of the continental side of the Crimea peninsula and of the Caucasus. The profile from Sukhumi to Trabzon is the most complicated. Near the shore of Anatolia, a previously unknown ridge was found. Also the continental side between Eregli and ~~Bosporus~~ is very complicated. The central basin of the Black Sea is limited in a very distinct manner by a very complicated continental descent which has very different topographical structures. An exception is found only by the north-western part of the Black Sea and, possibly, the region of Kaliarka ~~Bosporus~~ where the descent is not steep. The bottom of the basin itself is an example of a nearly perfectly plane surface. The next step of the investigation of the bottom of the Black Sea will be the comparison of the detailed batymetric and hemorphological maps, and also the solution of the problem of the origin of this interesting submarine

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New Data on the Topography of the Bottom of the  
Black Sea

SOV/20-121-5-17/50

topography. There are 2 figures and 7 references,  
which are Soviet.

ASSOCIATION: Chernomorskaya eksperimental'naya nauchno-issledovatel'skaya  
stantsiya Instituta okeanologii Akademii nauk SSSR g. Gelendzhik  
(Black Sea Experimental Scientific Research Station of  
the Institute of Oceanology, AS USSR, Town of Gelendzhik)

PRESENTED: April 14, 1958, by N.M. Strakhov, Academician

SUBMITTED: May 12, 1958

Card 3/3

PHASE I BOOK EXPLANATION: SOV/5331

International Geological Congress. 21st, Copenhagen, 1960.

Morskaya geologiya (Marine Geology) Moscow, Izd-vo AN SSSR, 1960. 205 p. 2,500 copies printed. (Series: Doklady sovetskikh geologov, problema 10)

Editorial Board: P. L. Bezrukov, Resp. Ed.; A. V. Zhivago, V. P. Zimorich and G. B. Udintsev; Ed. of Publishing House: V. S. Shegman; Tech. Ed.: V. Karpov.

PURPOSE: This book is intended for geologists and oceanographers.

COVERAGE: The book contains 18 articles representing the reports given by Soviet geologists at the 21st International Geological Congress. Individual articles deal with the bottom topography, sedimentation and tectonics of the oceans (Western Pacific and Southern Indian), as well as the geomorphology and tectonics of the Black and Caspian Seas and several sectors of the Baltic. An English résumé accompanies each article. No personalization

Pyrozev, M. M., K. Ye. Mikhail'tsev, G. B. Udintsev, I. B. Andreyev, A. P. Kisil'man, and Yu. I. Neprochnov. Results of Seismic-Acoustic Investigations of the Earth's Crust Under Seas and Oceans 35

Reidova, E. M. Stratigraphy of Sediments and the Paleogeography of the Northwestern Pacific and the Far Eastern Seas of the USSR According to Sea-Bottom Foraminifers 59

Kisil'man, A. P. Formation of Sediments in the Southern Pacific and Indian Oceans 69

Lapina, M. M., and M. A. Belov. Bottom Sedimentation Conditions in the Arctic Ocean 88

Godechurov, Y. P., and Yu. P. Neprochnov. Bottom Geomorphology and Tectonic Problems of the Bialak Sea 94

Solov'ev, V. P., L. S. Kulakova, and G. V. Asanova. Relief and Recent Floor Structure of the Southern Caspian Sea 105

Gorshakov, D. Ye. Recent Shelf Deposits in the Marginal Seas of Northeast Asia 116

Elenova, M. V. The Geology of the Barents Sea 123

Gorshkova, T. I. Sediments in the Norwegian Sea 132

Tasheva, M. V. Study of the Diagenesis of Some Marine Sediments 140

Zemkovich, V. P., O. K. Leont'yev, and Ye. M. Neven'skiy. The Influence of the Eustatic Post-Glacial Transgression on the Development of the Coastal Zone of Soviet seas 154

Aybulatov, M. A., V. L. Boldyrev, and V. P. Zemkovich. Some New Data on Sediment Streams Along Shores 164

Rudanov, V. I., A. S. Ionin, P. A. Kaplin, and V. S. Medvedev. Recent Vertical Movements of Seashores in the Soviet Union 175

Leont'yev, O. K. Types and Formation of Lagoons on Recent Seashores 188

Card 4/5 29

GONCHAROV, V.P.

Presence of volcanoes on the bottom of the Black Sea. Okeanologiya  
2 no.1:106-108 '62. (MIRA 15:2)

1. Chernomorskaya eksperimental'naya nauchno-issledovatel'skaya  
stantsiya Instituta okeanologii AN SSSR.  
(Black Sea--Volcanoes)

GONCHAROV, V.P.; MIKHAYLOV, O.V.

New data on the bottom relief of the Mediterranean Sea.  
Okeanologiya 3 no.6:1056-1060 '63. (MIRA 17:4)

1. Chernomorskaya eksperimental'naya nauchno-issledovatel'skaya  
stantsiya Instituta okeanologii AN SSSR.

GONCHAROV, V.P.; MIKHAYLOV, O.V.

Methods for the detailed echo sounding of the bottom relief.  
Trudy Inst. okean. 68:196-201 '64. (MIRA 17:6)

MELIK-SARKISYAN, S.S.; GONCHAROV, V.P.; SISAKYAN, N.M.

Amino acid activating enzymes of the chloroplasts of higher plants.  
Biokhimiia 30 no.1:181-188 Jan-F '65. (MIRA 18:6)

1. Institut biokhimi imeni Bakha AN SSSR, Moskva.

GONCHAROV, V.P.; YEMEL'YANOVA, L.P.; MIKHAYLOV, O.V.; TSYPLEV, Yu.I.

Areas and volumes of the Mediterranean and Black Seas. Okeanologiya 5 no.6:987-992 '65. (MIRA 19:1)

1. Chernomorskaya eksperimental'naya nauchno-issledovatel'skaya stantsiya i Institut okeanologii AN SSSR. Submitted March 16, 1965.

ACC NR: AP6030462

(N)

SOURCE CODE: UR/0213/66/006/004/0707/0711

AUTHOR: Goncharov, V. P.; Mikhaylov, O. V.

ORG: Black Sea Experimental Scientific-Research Station of the Institute of Oceanology, AN SSSR (Chernomorskaya Eksperimental'naya nauchno-issledovatel'skaya stantsiya, Institut okeanologii AN SSSR)

TITLE: Depth corrections for ground velocity change in echo-sounding in the Black and Mediterranean Seas

SOURCE: Okeanologiya, v. 6, no. 4, 1966, 707-711

TOPIC TAGS: hydrology, water regime, sound propagation, sound velocity, echo sounder, *UNDERWATER ACOUSTICS*

ABSTRACT: The processing of the observational data has shown that seasonal variations of the hydrological regime in the Mediterranean and Black Seas introduces insignificant deviations in the mean values of vertical sound velocities. To correct depths obtained by echo-sounders in the Mediterranean and Black Seas, standard generalized diagrams of corrections are suggested that can be applied to correcting depths from 100 m in the Black Sea and from 150 m in the Mediterranean Sea down to maximum depths. Orig. art. has: 3 tables.

SUB CODE: 08/ SUBM DATE: 16Mar65/ ORIG REF: 005/ OTH REF: 002

Card 1/1

UDC: 551.460.18

ACC NR: AP6029012 SOURCE CODE: UR/0413/66/000/014/0010/0010

INVENTOR: Kaufman, M. Sh.; Aleshin, V. A.; Pridin, G. M.; Goncharov, V. P.; Faretskiy, M. I.; Sirotinskiy, E. S.; Soloveychik, P. M.

ORG: None

TITLE: A method for producing tubes with a wall thickness which varies with length. Class 7, No. 183696

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 10

TOPIC TAGS: metal tube, metal rolling

ABSTRACT: This Author's Certificate introduces a method for producing tubes with a wall thickness which varies with length. The method consists of varying the distance between the rollers or moving the mandrel during rolling. This method is used on cold rolling pipe mills. A tube with varying wall thickness is used instead of the blank. The thickness of the wall of this tube varies according to a law corresponding to that of the finished product. This is done in order to reduce metal pressure on the rollers and to ensure the production of tubes with a significant difference in wall thickness without cracking.

SUB CODE: 13/ SUBM DATE: 13Jul64

Cord 1/1 UDC; 621.774.3.002,28

ACC NR: AT6034512

SOURCE CODE: UR/0000/66/000/000/0135/0146

AUTHOR: Goncharov, V. P.; Neprochnova, A. F.; Neprochnov, Yu. P.

ORG: none

TITLE: Bottom geomorphology and the deep-seated structure of the Black Sea basin

SOURCE: AN SSSR. Otdeleniye nauk o Zemle. Nauchnyy sovet po kompleksnym issledovaniyam zemnoy kory i verkhney mantii. Glubinnoye stroyeniye Kavkaza (Abyssal structure of the Caucasus). Moscow, Izd-vo Nauka, 1966, 135-146

TOPIC TAGS: Mohorovicic discontinuity, earth crust, granitic layer, basaltic layer, sedimentary complex, seismic velocity, geomorphology / *BLACK SEA BASIN*

ABSTRACT: A large part of this paper summarizes the results of geomorphological investigations conducted in the years 1956—1963 and discusses the tectonics of the Black Sea basin. The article includes schematic geomorphologic and tectonic maps of the Black Sea depression. Part of the paper reviews the deep-seated structure of the depression on the basis of data from deep seismic sounding conducted since 1957. The sedimentary complex is characterized by a low mean velocity of seismic waves (3—3.5 km/sec). The boundaries velocity ( $V_b$ ) in the granitic layer, found only along the basin periphery, is 5.8—6.3 km/sec. Two stages of this layer with  $V_b = 5.8—6$  and 6.3 km/sec were established recently south of the Crimea. The basaltic layer, 12—18-km thick in the eastern and 5—6-km thick in the western Black Sea, is characterized by a boundary velocity of 6.6—7 km/sec. For the

Card 1/2

ACC NR: AT6034512

Mohorovicic discontinuity,  $V_p = 8-8.2$  km/sec. A map of the thickness of the sedimentary complex and the Earth's crust is given in the text. The article also contains a schematic cross section of the Earth's crust through the central part of the Black Sea basin. Orig. art. has: 4 figures. [WA-794]

SUB CODE: 08/ SUBM DATE: 26Feb66/ ORIG REF: 017/ OTH REF: 001/

Card 2/2

GONCHAROV, V. P., VDOBIN, I. T., and YERMAKOV, V. M.

"The Effect of Neuroplegic Mixtures on the Ability of Animals to  
Withstand Oxygen Starvation and Burn Shock," from the book Theses of the Reports  
of the Scientific Session of the Military Medical Academy im. S. M. Kirov,  
Tezisy Dokladov Nauchnoy Sessi, 29 Oct-2 Nov 1956, Leningrad.

GONCHAROV, V. S., ZEMTSOVA, N. M., KULIK, N. F., SEPEROVICH, I. P.

Afforestation - Caspian Sea Region

Forestry on unirrigated soils in the northern Caspian Sea region. Les. khoz. 5 No. 9, 1952

Monthly List of Russian Accessions. Library of Congress. November 1952. UNCLASSIFIED.

NOSOV, Aleksandr Ivanovich, dots., kand. tekhn.nauk; BOTVINIK, Boris Sholomovich; BULIN, Vasilii Petrovich; GONCHAROV, Vasilii Savel'yevich; SAPELKIN, Vladimir Aleksandrovich; MIKHEYEVA, L.N., red.1sd-va; KARLOVA, G.L., tekhn. red.

[Over-all mechanization and automation at repair enterprises of the lumbering industry] Kompleksnaia mekhanizatsiia i avtomatizatsiia na remontnykh predpriatiakh lesnoi promyshlennosti; sbornik statei pod red. A.I.Nosova. Moskva, Gcslesbumizdat, 1963. 68 p. (MIRA 16:7)  
(Lumbering--Machinery)

GONGHAROV, V.T., student

Mechanized unit on the Tel'man State Farm. Zashch. rast. ot vred.  
i bol. 8 no.11:25-27 N '63. (MIRA 17:3)

1. Otdeleniye zashchity rasteniy Moskovskoy sel'skokhozyaystvennoy  
akademii imeni K.A.Timiryazeva, vneshtatnyy agronom po zashchite  
rasteniy sovkhoza im. Tel'mana, Moskovskaya obl.

GONCHAROV, V.V. [Goncharov, V.V.]

Graphite in building reactors. Jaderna energie 3 no.11:330-337 N '57.

GONCHAROV, V.V.

Research reactors. Trudy Inst.fiz.AN Grus.SSR 8:3-14 '62.  
(MIRA 16:2)  
(Nuclear reactors)

GONCHAROV, V.V.

Conferences and meetings of socialist countries on the use  
of reactors for research purposes. Atom. energ. 12  
no.4:342-344 Ap '62. (MIRA 15:3)  
(Atomic energy research—Congresses)

GONCHAROV, V.V.

Symposium on pilot power reactors. Atom. energ. 12 no.5:  
434-436 My '62. (MIRA 15:5)  
(Nuclear reactors)

S/089/63/014/001/001/013  
B102/B186

AUTHOR: Goncharov, V. V.

TITLE: I. V. Kurchatov and the nuclear reactors

PERIODICAL: Atomnaya energiya, v. 14, no. 1, 1963, 10-17

TEXT: I. V. Kurchatov, founder and director of the Institut atomnoy energii (Institute of Atomic Energy) later named after him, was intimately connected with the development of nuclear reactors in the USSR. The first Russian reactor was designed, built and put into operation in April 1952 under his supervision. It was a uranium-graphite reactor of the type ВРГ (IRT) with a maximum thermal power of 10,000 kw and a maximum thermal neutron flux of  $5 \cdot 10^{13}$  n/cm<sup>2</sup> sec using 10% enriched uranium as the fuel. This was a research reactor serving as prototype and basis of development for others. It was rebuilt in 1957-58 under Kurchatov's direction and its experimental potentialities were increased to a power of 15,000 - 20,000 kw with a maximum flux  $1.8 \cdot 10^{14}$  n/cm<sup>2</sup> sec; in the central water-filled channel it even reached  $3 - 4 \cdot 10^{14}$  n/cm<sup>2</sup> sec.

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S/089/63/014/001/001/013  
B102/B186

I. V. Kurchatov and the ...

The fuel now was 90% enriched uranium. The experience gained with this reactor in the testing of fuel elements were utilized in later developments as e.g. in the reactors of the first atomic power plant, in the atomic power plants at Beloyarsk and Novo-Voronezh and in the ice-breaker "Lenin". Besides numerous physical investigations of graphite and the development of new uranium-graphite reactors like, for example, that of the type WP(IR), Kurchatov enhanced other designs, e.g. the water-cooled water-moderated reactors that are in operation at the above-mentioned power stations of Beloyarsk and Novo-Voronezh. The first water-cooled water-moderated research reactor in the USSR was a BBR-2(VVR-2) reactor with enriched uranium and a core with no channel. It was the prototype of the BBR-C(VVR-S) reactor and was erected in the Institute of Atomic Energy. The first IRT pool reactor was also built there. Kurchatov earned great merit for the design and construction of a burst reactor with a flux of  $10^{18}$  n/cm<sup>2</sup> sec. After a visit in Uzbekistan he made recommendations for the construction of a research reactor in that area. A VVR-S reactor was built and started up at Tashkent in 1959 and Kurchatov was then made a member of the AS UzSSR. Tbilisi, too, received a research

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I. V. Kurchatov and the ...

S/089/63/014/001/001/013  
B102/B186

reactor (IRT) with his help, which was put in operation in 1959. A GGP-M(VVR-M) reactor was started up in Kiyev in March 1960. Kurchatov strove for exchanges of experience and for coordination of reactor research and engineering throughout the USSR; a special conference convened in March 1960, with A. P. Aleksandrov presiding was devoted to this purpose. It was decided that problems of neutron physics and spectroscopy should mainly be concentrated in the Institute of Atomic Energy, investigations on radiation effects should be carried out at the VVR-M reactor of the Leningradskiy fiziki-tehnicheskii institut AN SSSR (Leningrad Physico-technical Institute, AS USSR), the chemistry of hot atoms should become a major subject of the Institut fiziki AN GruzSSR (Institute of Physics, AS GSSR) and activation analyses should be assigned to the Institut geokhimii i analiticheskoy khimii AN SSSR (Institute of Geochemistry and Analytical Chemistry, AS USSR). At the VVR-M reactor of the AS UkrSSR investigations are concentrated mainly on neutron spectroscopy, thermalization and  $\gamma$ -ray studies as well as solid state physics, the latter being also a topic at the Leningrad research establishment. The principal fields of research at the IRT reactor of the Institut fiziki AN Lat.SSR (Institute of Physics, AS LatSSR) include

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S/089/63/014/001/001/013  
B102/B186

investigations on the spectra of  $\gamma$ -rays and short-lived isotopes and solid state problems. The IRT reactor of the Institut energetiki AN BSSR (Power Engineering Institute AS BSSR) is used to carry out studies in the field of solid state physics, nuclear spectroscopy, radiation stability, etc. Kurchatov was the initiator of the Ob'yedinennyi institut yadernykh issledovaniy (Joint Institute of Nuclear Research) in Dubna. He took part in numerous conferences in- and outside the country including the First Geneva Conference on Peaceful Uses of Atomic Energy in 1955. ✓

SUBMITTED: October 18, 1962

Card 4/4

GONCHAROV, V. V.; BABULEVICH, Ye. N.; NIKOLAYEV, Yu. G.; et al

"Construction of Research Reactor MP for Testing Fuel Element and Materials."

report submitted for 2nd Intl Conf Peaceful Uses of Atomic Energy, Geneva,  
31 Aug-9 Sep 64.

1. The first part of the

document is devoted to research on the role of the USSR

in the development of the world economy.

2. The second part of the

document is devoted to research on the role of the USSR

L 22003-05

ACCESSION NR: AP4047413

is presently rated 50 MW and it is planned

L 24710-66 EWT(m)/ETC(f)/EPF(n)-2/ENG(m) WW

ACC NR: AT6008415

SOURCE CODE: UR/3136/65/000/993/0001/0017

AUTHOR: Ambartsumyan, R. S.; Goncharov, V. V.; Glukhov, A. M.; Yegorenkov, P. M.; Smirnova, R. F.; Shavrov, P. I.

ORG: none

TITLE: Increasing the power of VVR-S reactors 19

SOURCE: Moscow. Institut atomnoy energii. Doklady, IAE-993, 1965. O povyshenii moshchnosti reaktorov VVR-S, 1-17

TOPIC TAGS: water cooled nuclear reactor, water moderated reactor, reactor fuel element, nuclear reactor power / VVR-S water cooled nuclear reactor

ABSTRACT: The authors consider the possibilities for using slightly modified MR fuel assemblies for increasing the power of VVR-S water-cooled water-moderated reactors. A figure is given showing the construction and dimensions of the MR fuel assembly. The assembly consists of five tubular fuel elements of circular cross section. The heat-transfer area of the MR fuel assembly is 2.35 times as great as assemblies using EK-10 elements. The elements are interchangeable, i.e. they may be

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L 24710-66

ACC NR: AT6008415

placed in any cell of the reactor core. The efficient design of the MR elements assures that 90% of the water passing through the core flows through the fuel assembly. The assembly contains 173 grams of U-235, i.e. 35% more than an assembly with EK-10 elements. The use of these elements makes it possible to irradiate specimens in experimental channels or ampules with an outside diameter of 14 mm. Larger specimens may be irradiated by using fuel assemblies with fewer tubular fuel elements. However, use of the MR fuel assembly cuts down the volumetric fraction of water in the reactor core to 0.65 as against 0.7 when assemblies with EK-10 elements are used. The volumetric water fraction is cut still further to 0.52 by the use of beryllium moderators to reduce nonuniformity in heat release due to localized increases in neutron density in the water spaces between adjacent MR fuel assemblies. The use of these fuel assemblies increases the power of the reactor to 8-11 Mw and the maximum neutron intensity (U-235) to  $\sim 9 \cdot 10^{13}$  neutrons/cm<sup>2</sup> sec. The authors discuss the experimental possibilities of the VVR-S reactor with MR fuel assemblies. Orig. art. has: 6 figures, 1 table.

SUB CODE: 18/ SUBM DATE: 00/ ORIG REF: 001/ OTH REF: 003

Card. 2/2 *fv*

L 24711-66 EWT(m)/ETC(f)/EPF(n)-2/ENG(m) WW

ACC NR: AT6008414

SOURCE CODE: UR/3136/65/000/992/0001/0025

AUTHOR: Goncharov, V. V.; Chernilin, Yu. F.; Shavrov, P. I.; Chernyshevich, V. N.; Yegorenkov, P. M.; Zhigachev, V. M.; Larin, I. I.; Korneyev, V. T.; Yashin, A. F.

ORG: none

TITLE: Remodeling the IRT reactor at the Institute of Atomic Energy imeni I. V. Kurchatov

SOURCE: Moscow, Institut atomnoy energii. Doklady, IAE-992, 1965. Rekonstruktsiya reaktora IRT v IAE im. I. V. Kurchatova, 1-25

TOPIC TAGS: nuclear reactor, reactor fuel element, nuclear reactor core

ABSTRACT: The authors describe steps taken to redesign the IRT reactor at the Institute of Atomic Energy. The following units and systems were altered to increase the power of the reactor, expand its range of experimental possibilities, and improve its operational qualities: 1. fuel elements and reactor core design; 2. cooling system; 3. experimental units; 4. control and shielding system; 5. radiation-monitoring system; 6. special ventilation. Figures are given showing the

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L 24711-66

ACC NR: AT6008414

longitudinal and transverse cross sections of the reactor as well as detailed diagrams of the reactor core and the channel for the "cold" neutron source. The new fuel assemblies have nearly twice as much heat-transfer area as the rod elements formerly used. Each assembly contains 155 grams of 36% enriched U-235. Metallic beryllium is used as the reflector. The core contains 54 cells in all and has a 50 mm lead shield for stopping  $\gamma$ -radiation. The experimental units include horizontal and vertical channels as well as a "cold" neutron source and a thermal neutron "trap". The modifications made in the reactor give a maximum thermal neutron flux (U-235) in the core of  $5 \cdot 10^{13}$  neutrons/cm<sup>2</sup> sec, a maximum fast neutron intensity ( $E > 0.5$  Mev) of  $9 \cdot 10^{13}$  neutrons/cm<sup>2</sup> sec, and a power of 4000-5000 kw. The procedure used for disassembly and reassembly operations in the reactor pool is described. Some of the physical and technical characteristics of the modified IRT-M reactor are tabulated. Orig. art. has: 10 figures, 3 tables.

SUB CODE: 18/ SUBM DATE: 00/ ORIG REF: 000/ OTH REF: 006

Card 2/2

L 39777-66 EWT(m)/ETG(f)

GD-2

ACC NR: AT6012692

SOURCE CODE: UR/3136/65/000/991/0001/0044

AUTHOR: Goncharov, V. V.; Babulevich, Ye. N.; Shavrov, P. I.; Ryazantsev, Ye. P.  
Novikov, I. M.; Yegorenkov, P. M.; Chervyatsov, A. A.; Frolov, I. P.; Zhigachev,  
V. M.; Pushnin, B. T.; Fishevskiy, V. K.; Zakharov, L. K.; Kruglov, A. B.; Karasev,  
N. A.; Goncharov, L. A.

ORG: State Committee on the Use of Atomic Energy SSSR, Institute of Atomic Energy  
im. I. V. Kurchatov, Moscow (Gosudarstvennyy komitet po ispol'zovaniyu atomnoy  
energii SSSR, Institut atomnoy energii)

TITLE: Experience in operation of the MR reactor and tests of fuel elements and  
materials

SOURCE: Moscow. Institut atomnoy energii. Doklady, no. 991, 1965. Opyt eks-  
plautatsii reaktora MR i provedeniye ispytaniy TVEL i materialov, 1-44

TOPIC TAGS: nuclear research reactor, reactor fuel element, nuclear reactor  
material, nuclear reactor characteristic

ABSTRACT: The authors discuss the loop research reactor MR constructed at the  
Kurchatov Institute of Atomic Energy and intended for the test of fuel elements  
and materials in new atomic installations. It is described in paper P/323 of the  
Third Geneva Conference in 1964. The present article describes in detail its con-

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L 39777-66

ACC NR: AT6012692

struction and the various test loops in it. The section headings are: I - Introduction. II. Operation of reactor. 1. Certain physical characteristics of the reactor. a) Fuel burnup. b) Efficiency of control valves, scram rods, and movable fuel assemblies. c) Fluxes of thermal and fast neutrons. 2. Control and protection system of the reactor. 3. Technological systems of the reactor. a) Cooling loop for fuel element assembly. b) Cooling loop for the reactor assembly blocks. c) Intermediate (second) cooling loop of reactor. d) Third cooling loop of reactor. e) Water purification system. 4. Fuel assembly operating conditions and conditions for the graphite stacking blocks. 5. Reloading operations. III. Operation of loop installations. Organization and performance of tests on fuel elements and materials. IV. Dosimetric control. Radiation shielding of reactor. The reactor has been in operation since 24 July 1964, and its power has been gradually increased from the initial 20 MW to 30 MW. The usual operation is at 25 MW. The reactor has 3 loop channels with 7 associated experimental channels. Various characteristics of the reactor at different power ratings are tabulated. Major contributions to the adjustment of the MR reactor were made by A. Ye. Alekseyev, B. A. Alekseyev, S. N. Begichev, A. B. Bugayenko, Yu. I. Kovalev, V. K. Lebedev, A. M. Rotankov, V. D. Rusov, N. V. Sarychev, Ye. S. Chernorotov, and Yu. A. Shikov.

Orig. art. has: 13 figures and 6 tables.

SUB CODE: SUBM DATE: 00/ ORIG REF: 001

Card 2/2774P

ACC NR: AP6019036

(A)

SOURCE CODE: UR/0173/65/018/006/0064/0071

AUTHOR: Varshavskiy, I. L.; Malov, R. V.; Chalabov, V. G.; Goncharov, V. V.

ORG: KTB Minavtotransa ArmSSR

TITLE: Catalytic purification of exhaust gases of carburetor engines on aluminoplatinum balls

SOURCE: AN ArmSSR. Izvestiya. Seriya tekhnicheskikh nauk, v. 18, no. 6, 1965, 64-71

TOPIC TAGS: exhaust gas, carbon monoxide, aluminum compound, platinum, *FUEL*  
*OXIDATION*

ABSTRACT: Oxidation of the toxic components of an incomplete combustion of gases (mostly CO and a small amount of cancerogenic substances) on a catalyst is one of the methods for rendering exhaust gases harmless. The burning of small amounts of CO on the catalyst consists of three processes: diffusion of the CO molecules on the surface of the catalyst, catalytic oxidation of CO into CO<sub>2</sub>, and diffusion of the CO<sub>2</sub> molecules into the atmosphere. During continuous oxidation of CO all of these processes occur simultaneously. The quasistationary method offered by D. A. Frank-Kamenetskiy (Zhurnal fizicheskoy khimii 13, 756, 1939) was used during the study of the oxidation of CO on Al-Pt balls. The study was made in a special apparatus consisting of two parts. One part was used to study the changes in the volume of flowing gas, and the other to study the degree of neutralization of the entire amount of the engine's exhaust gases.

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ACC NR: AP6019036

The MZMA-407 carburetor engine was used as a generator for the gases. The catalyst was charged into the reactor (see Fig. 1, where 1 is the body of the reactor, 2 is the reactor screen, 3 is the cover, 4 is a pipe for taking samples, and 5 is a thermocouple) between two stainless steel screens. Platinum applied to the  $Al_2O_3$  spheres (diameter 3-5 mm) was used as a catalyst. One gram of Pt was needed for producing 1 kg of catalytic elements. Two types of catalysts were tested: (1) with surface coating of the balls with Pt, and (2) with surface coating with part of the Pt penetrating deep into the grains of the spheres (internal diffusion).

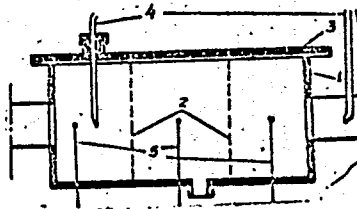


Figure 1.

The process of combustion was investigated in both types of catalyst at a temperature  $\leq 4000$ . The curves were plotted in coordinates  $a = F(t)$ , where  $a = [(c_1 - c_f)/c_1] \cdot 100$ ,  $t$  is the temperature, and  $c_1$  and  $c_f$  are concentrations of CO in the gases at the entrance and exit of the reactor, respectively. The interpretation of the curves showed that at  $\leq 2000$  the reaction occurred in the kinetic region. At gas temperatures  $> 3000$  the diffusion of the components to the active centers of the catalytic elements played a predominant part in combustion. It was shown that the quantity of catalytic elements necessary for the entire detoxication of exhaust gases could be calculated from the criterial equation  $Sh = 0.05 Re^{0.7}$ , where  $Re$  is the Reynolds criterion,  $Sh$  is the Sherwood crit.  $= \beta_c D/k_c$ ,  $\beta_c$  is the constant of the diffusion rate reduced to the difference in concentrations,  $d$  is the controll-

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ACC NR: AP6019036

ing parameter, and  $k_p$  is the diffusion coefficient reduced to the concentration gradient and controlled by Fick's law. The neutralizing apparatus designed from this formula provided for complete purification from CO of the exhaust gases of the GAZ-51 automobile under every possible operating condition. Orig. art. has: 4 fig., 4 formulas, and 1 table.

SUB CODE: 07/ SUBM DATE: 07Jan65/ ORIG REF: 003

Card 3/3

GONCHAROV, V. V.

DECEASED

1963/1

c. 1962

REFRACTORIES  
(metals)

see ILC

MATUSKOV, S.I., dots., GONCHAROV, V.V., KHARCHENKO, A.M., SINITSYNA, L.N.

Tissue therapy in a number of types of chronic dermatitis. Vrach.  
delo no.9:973 S'58 (MIRA 11:10)

1. Kafedra kozhno-venericheskikh bolezney (zav. - dots. S.I. Matuskov)  
Odesskogo meditsinskogo instituta:  
(SKIN-DISEASES)  
(TISSUE EXTRACTS)

ACC NR: AT7003998  
AUTHOR: Goncharov, V. Ya.; Moskalev, V. A.; Okulov, B. V.;  
Ponomarev, V. P.; Skvortsov, Yu. M.; Slupskiy, A. M.; Shashov, V. V.;  
Shestakov, V. G.  
ORG: none  
TITLE: Stereobetatron for 15 Mev  
SOURCE: Mezhevuzovskaya konferentsiya po elektronnyim uskoritelyam. 5th,  
Tomsk, 1964. Elektronnyye uskoriteli (Electron accelerators); trudy konferentsii.  
Moscow, Atomizdat, 1966, 123-131  
TOPIC TAGS: stereobetatron, betatron, *mev accelerator*  
ABSTRACT: A two-chamber 15-Mev stereobetatron was built in the Tomsk  
Polytechnic Institute; it is designed for two cross bremsstrahlung beams with a  
rate of 1000 r/min. in each beam. The electromagnet and pulsed-supply  
system of the accelerator are briefly described. Designed along conventional  
/2  
exc  
at a volt  
kept under a  
3-microsec 30-kv  
current pulses up to 2  
8x10<sup>-8</sup> torr) by titanium P  
SUBCODE: 09, 20 / SUBM DATA

AMOSOV, V.N.; POMERANTS, D.M.; GONCHAROV, Ya.P.

Selecting protective atmospheres for the prevention of decarburization in annealing perlitic malleable cast iron. Avt.prom. no.12:  
28 D '60. (MIRA 13:12)

1. Yaroslavskiy motornyy zavod.  
(Cast iron—Heat treatment)  
(Protective atmospheres)

UGAY, Ya.A.; MARSHAKOVA, T.A.; GONCHAROV, Ye.G.

Effect of the nature of the chemical bond on the solubility  
of inorganic substances in the solid state. Zhur.neorg.khim.  
8 no.1:177-185 Ja '63. (MIRA 16:5)  
(Chemical bonds) (Solutions, Solid)

L 2787-66 EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD

ACCESSION NR: AP5022260

UR/0363/65/001/007/1104/1108  
546.682'19'18-165

20  
19

AUTHOR: Ugay, Ya. A.; Goncharov, Ye. G.; Bolkhovitina, N. B.; Shvyreva, T. N. B

TITLE: Preparation of  $\text{InAs}_{1-x}\text{P}_x$  solid solutions of constant composition along the length of the ingot

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 7, 1965, 1104-1108

TOPIC TAGS: solid solution, <sup>27</sup>indium alloy, arsenic, phosphorus alloy

ABSTRACT: The authors propose a simple method for preparing solid solutions of constant composition along the length of the ingot, and illustrate it with the synthesis of  $\text{InAs}_{1-x}\text{P}_x$ . The method in maintaining the concentration of arsenic and phosphorus, i.e., their partial pressures, constant during the entire course of crystallization of the solid solution in the gas phase. This is done by placing solid phosphorus and arsenic in the reaction vessel at some distance from the indium: at a constant temperature, not only the partial pressures of phosphorus and arsenic, but also their ratio remains constant. If necessary, this ratio can be varied by changing the temperature of the section of the reaction ampul which contains phosphorus and arsenic. The method is applicable only to the formation

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ACCESSION NR: AP5022260

of isovalent solid solutions involving two volatile components; in the case of one such component, the method is not applicable, for example, to the preparation of  $Ga_xIn_{1-x}As$  solid solutions of constant composition along the length of the ingot. Orig. art. has: 6 figures and 1 table.

ASSOCIATION: Voronezhskiy gosudarstvennyy universitet (Voronezh State University)

SUBMITTED: 03Mar65

ENCL: 00

SUB CODE: SS, IC

NO REF SOV: 006

OTHER: 007

Card

2/2

ACC NR: AT6028808

(N) SOURCE CODE: UR/3222/65/000/008/0100/0103

AUTHOR: Strekalov, S. S. (Candidate of physico-mathematical sciences); Goncharov, Ye. I. (Junior research associate)

ORG: none

TITLE: Evaluation of accuracy in calculations of sea waveheight by considering different numbers of spectral components

SOURCE: Moscow. Gosudarstvennyy proyektno-konstruktorskiy i nauchno-issledovatel'skiy institut morskogo transporta. Trudy, no. 8(14), 1965. Volnovyye issledovaniya; inzhenernyye izyskaniya (Wave studies; engineering research), 100-103

TOPIC TAGS: ocean wave, spectrum analysis, ocean dynamics

ABSTRACT: The problem of selecting an optimum number of spectral components for calculating average heights of sea waves is solved on the basis of a simple mathematical model. The error resulting from the selection of a given number of components is found. The selected mathematical model is a theoretical solution for the spectrum of refracted waves in a coastal zone with rectilinear isobaths. It is found that the minimum number of directional spectrum components, for the simplest case, that have to be considered is three in order that the error does not exceed 10%.

Orig. art. has: 2 figures.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 002

Cord 1/1

SOV/35-59-8-6710

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959,  
Nr 8, p 87

AUTHOR: Goncharov, Ye.I.

TITLE: Goniometric Surveying With Automatic Transfer of Initial(Back)  
Direction

PERIODICAL: Tr. Vses. nauchn.-tekhn. soveshchaniya po marksheyd. delu,  
1956, Moscow, Ugletekhizdat, 1958, pp 529 - 532

ABSTRACT: When the proposed method of surveying is employed, the clamping  
micrometric device of the azimuth horizontal circle of a theodolite is separated from the goniometric part and is made in the  
form of an independent device, a fixing headpiece. On this device  
is put on, in a strictly definite position, either a goniometer or  
a special signal functioning both as a signal and as an auxiliary  
attachment for orienting the fixing headpiece. This orientation  
is brought about by aiming at the back point of the traverse  
through an auxiliary sighting telescope fastened to the signal.  
The survey is conducted on cantilevers with lost points by two

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Goniometric Surveying With Automatic Transfer of Initial (Back) Direction

attendants instead of three as usually. The foreground point is attended by an assistant who mounts a signal on it and directs it by aiming at the instrument standing on the preceding point (in the vertex of the angle) being attended by the observer. The aiming of the goniometer at the back point is not performed at all, since the orientation of the instrument is carried out automatically during its mounting on the fixing headpiece. This method makes it possible to considerably accelerate the surveying of traverses without deteriorating the accuracy. During a test survey, a 250-m long traverse consisting of 18 points was covered in 45 minutes.

K.K. Glazenap

Card 2/2

AGROSKIN, A.A.; GONOHAROV, Ye.I.

Heat capacity of coal. Koks i khim. no.7:8-13 '65.

(MIRA 18:8)

1. Vsesoyuznyy zaochnyy institut pishchevoy promyshlennosti.

AGROSKIN, A.A., doktor tekhn.nauk; BARSKIY, Yu.P., kand.tekhn.nauk;  
GONCHAROV, Ye.I., inzh.; KANAVETS, P.I., kand.tekhn.nauk

Measurement of the heat capacitance of solid fuels heating  
to temperatures up to 1000°C. Izv.vys.ucheb.zav.; energ.  
8 no.12:51-57 D '65. (MIRA 19:1)

1. Vsesoyuznyy zaochnyy institut pishchevoy promyshlennosti;  
Institut goryuchikh iskopayemykh, Moskva, i Vsesoyuznyy  
nauchno-issledovatel'skiy institut fiziko-tekhnikeskikh i  
radiotekhnicheskikh izmereniy. Predstavlena kafedroy  
energetiki. Submitted December 23, 1964.

AGROSKIN, Anatoliy Abramovich. Prinimali uchastiye: GRIGOR'YEV,  
S.M., doktor tekhn. nauk; PITIN, R.N., doktor tekhn.  
nauk; PETRENKO, I.G., kand. khim. nauk; GOL'EERG, I.I.,  
kand. fiz.-matem. nauk; ZAGREBEL'NAYA, V.S., kand.  
tekhn. nauk, dots.; GONCHAROV, Ye.I.

[Physics of coal] Fizika uгля. Moskva, Nedra, 1965.  
351 p. (MIRA 19:1)

SAMGIN, P.A.; SHESTOPAL, Ya.V.; ZOSIMOVSKAYA, T.V.; GONCHAROV, Ye.R.

Chemical shrub control from the airplane. Zashch. rast. ot vred.  
i bol. 6 no.4:20-21 Ap '61. (MIRA 15:6)

(Kalinin Province—Clearing of land)

POPOV, S.N., kand. med. nauk; GONCHAROV, Ye.S.

Operation of a fluorographic service in conjunction with the general  
X-ray network. Zdrav. Res. Feder. 3 no.5:20-22 My '59.

(MIRA 12:7)

1. Iz oblastnoy rentgenelegicheskoy stantsii (zav. S.N. Popov). pri  
Tambovskoy oblastnoy bel'nitse (glavnyy vrach A.I. Yevseyev).  
(RADIOGRAPHY)

GONCHAROV, Ye.S., kand. tekhn. nauk

Method of calculating for vertical cylindrical centrifugal vibrating sieves. Trakt. i sel'khozmasb. no.9:21-23 S '65.

(MIRA 18:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva.

GONCHAROV, Ye. V.

SAVCHENKO, G.S.; GONCHAROV, Ye. V.

Study of the interaction of gallium chloride with tartaric acid  
and its sodium salts. Zhur. neorg. khim. 1 no.8:1804-1825 Ag '56.  
(Gallium chlorides) (Tartaric acids) (MLRA 9:11)

GONCHAROV, Ye. V.

5(4)  
AUTHORS:  
Yasli'ev, V. P., Korshakov, V. B., 207/153-50-1-30/30  
Tatarskiy, E. B.  
TITLE:  
COMPLEX FORMATION IN SOLUTIONS (Sovetskaya-doklady  
po metodam izucheniya kompleksobrazovaniya v rastvorakh)  
PERIODICAL:  
Izvestiya vsesoyuznogo nauchnoy issledovaniya, Khimicheskaya i  
fizicheskaya tekhniya, 1956, No. 3, pp. 173-174 (1956)

ABSTRACT:  
From February 18 to 21, 1956 a conference discussion took place at the town of Ivanovo; it dealt with the subjects mentioned in the title. It was called on a decision of the Fifth All-Union Conference on the Chemistry of Complex Formation. More than 200 persons attended the conference. At the time 102 delegates from various towns of the USSR. The conference was devoted to the study of the formation of the complexes in solution and the methods of calculating the instability constants according to experimental data and problems concerning the influence of the solvent upon the processes of complex formation. The authors of the conference were: A. E. Babko and E. M. Zaslavskiy, "Physical and Chemical Analysis of the Systems with 3 Colored Complexes in the Solution", the results of a systematic investigation in copper-quinoline-salicylate, as well as in copper-pyridine-salicylate systems by means of the optical method were dealt with. In the lecture by Ye. V. Zaslavskiy the idea of a further investigation of the complex formation processes in solution was developed. Besides the determination of the composition and stability of the complexes also the physical and chemical properties, the chemical nature and the structure of the complex compounds must be investigated.

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1.1. Al'teyeva and E. B. Yatslavskiy in their lecture "Investigation of the Polymerization of Iso-Poly acids in Solution" mentioned experimental results of the investigation of the polymerization in solutions of molybdic acid. The authors found that especially the molybdic acid within a certain range of the pH values and the concentrations exists as a number of compounds that can be expressed by an overall formula  $MoO_4(MoO_3)_n$ . In the lecture by E. V. Zaslavskiy and V. B. Yatslavskiy investigation results on basis salts taking into account the complex formation in solutions by means of the potentiometric method were mentioned for systems with zinc, cadmium and sodium. In the examination of their results the authors employed the method of the stable difference. The calculation of the consecutive formula by means of the potentiometric method was carried out according to the interpolation formula by means of the potentiometric method. The authors also mentioned the results of the Solubility Diagram of the System  $Cu^{2+}-Cl^- - H_2O$  in investigating Complex Copper Compounds in Saturated Solutions. It was found that the substances at the bottom of the liquid is more basic than the solutions; furthermore, the increased acidity of the solution from the viewpoint of the formation of hydroxy-chloro complexes in the solution was mentioned. V. B. Yatslavskiy opened the discussion with his lecture. He pointed out the necessity of utilizing the concepts worked out in the investigations of the polymerization in organic chemistry in the chemistry of polynuclear complexes. A. A. Grishberg thinks that the new approach of the hydrolysis

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907/13-56-3-30/30

Investigation as developed by the Scandinavian school is of high value. It also pointed to the necessity of studying the kinetics of the polymerization process and a quantitative determination of the degree of the polymers. A. E. Bakko pointed out that the study of the polymer structure was necessary. E. P. Komar mentioned in his lecture that the rather widely diffused polymerization type according to the scheme "nucleus + chain seeder" is not obtained in all cases. The following scientists took part in the discussion: A. E. Felaschev, A. I. Ahler, I. S. Mustafin, I. V. Tamasayev, and E. B. Tatarskiy. A. E. Bakko then discussed in his lecture "Methods of Determining the Dissociation Constant of the Complex Groups in Solutions" the main principles of determining the instability constants. E. P. Komar discussed in his lecture "Calculation Methods of the Instability Constants of the Complex Compounds According to Experimental Data" the possibilities of using the known calculation methods of the instability constants for various cases of the complex formation in solution. Several semiconductor employees are formed the displacement method by Abde and Bolander (completed by A. E. Bakko) cannot be recommended for the calculation of the instability constants. The lecturer discussed the displacement methods of the polymers proposed by E. Ferrus, Edeas, Rosetti, Ketchard, Kroll, and other authors. The constants calculated in this way are not very accurate. It was proved that the method of successive approximations can lead to wrong conclusions as to the chemical processes taking place in the system investigated. The most probable value of the physical constants can be obtained by the method of the least squares. B. V. Pittayn, Ye. M. Tekater and L. I. Kiselevskaya described the determination methods of the instability constants of the oxalate complexes of Al<sup>3+</sup>, Cu<sup>2+</sup>, and Fe<sup>3+</sup> which are based on the investigation of the equilibrium and the displacement of the complex formation by silver ions. E. P. Komar mentioned in his lecture that the displacement of the complex formation by silver ions is not very accurate. I. V. Tamasayev and G. S. Savchenko held a lecture on the Role of the Time Factor in the Investigation of the Complex Formation. In the discussion on the lecture A. A. Grishberg mentioned that due to the slow adjustment of the equilibria the method discussed of determining the instability constants (palladium and cobalt complexes) can often not be employed. A. V. Ablov pointed out the necessity of finding direct methods of proving the existence of intermediate forms in a step-wise complex formation. E. B. Tatarskiy mentioned that the instability constants of slowly dissociating complexes can be calculated from thermodynamic data. L. P. Adzhimov, A. E. Golub and others took part in the discussion of the lecture. A. E. Bakko requested inclusion in the next conference on the chemistry of complex compounds a lecture in which reference on the calculation methods of the instability constants should be discussed by the example of actual cases. This should clarify the divergencies of the values of the constants determined by the method of evaluating the experimental data can lead. E. P. Komar stressed that in the determination of the instability constants all chemical equilibria should be taken into account that in the solution, especially the hydrolysis processes of the central ion and the side reactions. In the lecture delivered by V. M. Pashova and A. P. Zaslavskaya Application of the Distribution Method to the Investigation of the Stability Constants

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of some Thorium Complex Compounds" results obtained from the experimental investigation of the distribution of thorium compounds in the systems: acetylacetone - benzene - water, and 2-oxo-1,4-naphthoquinone - chloroform - water were given. From these data the instability constants of the thorium complexes with acetylacetone and 2-oxo-1,4-naphthoquinone were calculated. I. V. Tashchuk, O. S. Serchenko and Ye. V. Gushchayev held a lecture on the application of the solubility constants in the determination of the instability of complex compounds in solutions. In this lecture the methods of investigating complex formation processes in the solutions were discussed (pH assessment, measurement of the optical density, as well as of the heat of mixing). B. P. Kiselev held a lecture on the "Application of the Solubility Constants in Studying the Phthalocyanine Complexes of Metals". He presented the results of the experimental investigation of the reaction of the transition of the phthalocyanine of cobalt, nickel, copper, cadmium, as well as of the free phthalocyanine into the sulfuric acid solution for the theoretical reasoning, and as an experimental proof of the existence of f-bonds in the complexes investigated. These characteristics also served him as a proof of new electronic formulas of phthalocyanine and its complex derivatives. In the lecture delivered by I. K. Kuznetsov on "The Method of the Two Solvents as a Method of Investigating the Formation and Properties of Organic Complexes" it was stressed that this method makes it possible to determine the number of complexing groups in the system, their composition and relative stability. V. I. Gusakov, A. K. Babko, E. P. Kovalev, I. K. Kuznetsov and I. I. Tashchuk took part in this discussion. In the lecture delivered by A. A. Grinberg and B. P. Kiselev on the "Complex Formation in the Systems with a Large Chloride Ion Concentration" it was proved that in the case of a large chloride ion concentration excess complexes with the coordination number 5 are formed. The instability constants of these complexes were estimated. K. Z. Gerasimov mentioned a new manipulation in the spectrophotometric investigation of the complex compounds that can be used in systems with the formation (or predominance) of anionic complex. This method makes it possible to determine the composition and instability constant of the complex. In the lecture delivered by E. B. Yatsimirskiy and V. P. Kiselev on the "Application of the Theory of Crystal-Field Theory to the Determination of the Composition and Structure of the Chloride Complexes of Cobalt, Nickel and Copper according to the Absorption Spectra of these Complexes" was discussed. It was proved that in a hydrochloric acid solution above 5 mole/liter in solution there exists an equilibrium between the tetrahedral and octahedral forms of the cobalt chloro complexes. Yu. P. Kuznetsov presented his lecture "The Application of Radioactive Isotopes in the Investigation of the Solvation Equilibrium in Solutions of Complex Compounds" the possibility of using data on the isotope exchange to clarify the structure of the complex and mechanism of the hydration processes. V. Kiselev mentioned in his lecture the use of radioactive isotopes in the study of the stability of complexes in non-aqueous solutions. A. V. Ablov, V. E. Tolmachev, I. Kuznetsov and A. E. Golub took part in the discussion of the lecture. The usefulness of employing the theory of the crystalline fields in explaining the results obtained from the absorption spectra of the com-

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plex compounds was stressed. In the lecture delivered by A. M. Golub on "The Investigation of the Complex Formation by the Method of the Dielectric Permeability and the Polarization" the principles of the methods mentioned were presented. This method is suitable for investigating the compounds of the type of the "cellulose" products. The lecture delivered by I. A. Shuk and Ye. Ye. Zhukovskiy on "The Method of the Dielectric Constant for Investigating the Complex Formation in the Type of Crystal Solvents in Solutions" dealt with the investigation of the solvents of lanthanum and cerium chlorides with ketones, as well as with the study of the compounds formed in heterogeneous systems with tributyl phosphate and nitric acid. V. P. Toropova gave in her lecture "The Polarographic Method of Investigating the Complex Formation in Solutions" a survey of the applications of the polarographic method in the study of the complex compounds, and illustrated several fine characteristic features of this method. In the lecture delivered by E. M. Shadrinova "The Cryoscopic Method of Investigating the Complex Formation Reactions" a survey of the possibilities of the cryoscopic method was given, and its application in the study of several complex compounds of amide chlorides with organic substances was proved. A. M. Golub described the results of his investigations of the complex compounds of several metal ions. A. M. Golub and Ye. Ye. Zhukovskiy considered the cryoscopic method of investigating complex compounds to be of considerable value. E. M. Shadrinova pointed out that the publication of the survey reactions would be desired; this concerns especially the polarographic method. The cryoscopic method should be brought to a level that makes the calculation of the equilibrium constants of the processes to be investigated possible. The problems of the processes to be investigated should be brought to a level that makes the calculation of the equilibrium constants more important. Many scientists use the instability constants without taking into account the way in which they had been obtained. The calculation methods employed by A. M. Golub are one of the best, as compared to those employed at present. In his lecture E. M. Shadrinova pointed out the extremely great importance of the mathematical evaluation of the results obtained, as well as of the plotting of curves. A. E. Kabanov suggested selecting one or two systems that are experimentally investigated, and to evaluate the results obtained according to different methods so that it is possible to check and evaluate them. Ye. I. Fur'yev took part in the discussion. Ye. I. Fur'yev discussed in his lecture "The Effect of the Solvent on the Complex Formation Process as Well as on the State of Equilibrium in the Solutions of Complex Compounds" the influence exerted by the solvent upon the molecular state, upon the solvation of the complexed in the system, upon the stabilization of the complex formed and upon the step-wise dissociation of the complex by the dissociation of other processes. The influence exerted by the solvent upon the complex formation process was discussed. It was concluded that a direct relation does not exist, and that the chemical nature of the solvent must be taken into account. A. E. Kabanov and E. V. Engerova held a lecture on "The Spectroscopic Investigation of Nickel Cobalt 'Pyridines' in Various Solvents". The instability constants of the complexes were determined and it was proved that the

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stability of the 'pyridinate' is changed in dependence on the solvent. In the lecture the influence of the dielectric constant and stability constant of the ligand on the complex formation was discussed. The results of the investigation of the complex formation of lead in aqueous ethanol solutions at different content of the non-aqueous solvent and at a constant ionic strength. A step-wise character of the complex formation was found as well as the instability constants of the complexes. The influence of the dielectric constant of the solution on the stability of the investigated complexes was proved. In the lecture by V. P. Vasil'yer on the "Investigation of Aquo Complexes in Mixed Solvents" the main attention was devoted to the accuracy of the qualitative recording of the solvation effects in the complex formation. The applicability of the polarographic method in the determination of the composition and stability of the aquo complexes in mixed solvents was proved and the results of the investigation of the aquo complexes in ethanol solutions was mentioned. V. N. Tolstoboy, V. I. Kuznetsov

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and I. V. Tsamagov stressed in their lectures the necessity of a more complete and general investigation of the solvation processes. A. E. Bakko and A. M. Golub pointed out the great importance of the investigations of the complex formation equilibria in non-aqueous solutions, and made several critical comments on the lecture by Ya. I. Tur'yam. The following scientists took part in this discussion: L. P. Amersbach, G. I. Khetyashevskiy, A. P. Moskvina and A. G. Shtrikberg. At the final meeting of the conference A. A. Shtrikberg, Corresponding Member, AS USSR, said in his speech that such a conference was very urgent. A detailed discussion of the determination methods of the composition of the complexes, as well as of the method used in the study of the solvation characteristics of the stepwise complex formation was extremely useful for all who attended this conference.

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SOV/55-58-3-30/30

5(2)

SOV/78-4-7-15/44

AUTHORS:

Savchenko, G. S., Goncharov, Ye. V.

TITLE:

On the Tartrates of Indium (O tartratakh indiya)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 7,  
pp 1558-1567 (USSR)

ABSTRACT:

The reaction of indium chloride in an aqueous solution with tartaric acid and sodium tartrate was investigated in isomolar series of from 0.1 mol/l to 0.5 mol/l. The results obtained by measuring the e.m.f., the hydrogen ion concentration, and the optical density are shown by figures 1-3 and by tables 1 and 2. The development of hydrogen ion concentration with a further addition of tartaric acid indicates a complex formation in stages. The primary stable complex ion has the highest stoichiometric ratio 1 : 1, the less stable ion with maximum saturation has the ratio 4 : 1 (tartaric acid :  $\text{InCl}_3$ ).

Figure 4 shows the time-dependent precipitation in the case of varying tartaric acid concentration, and figure 5 - the solubility of the  $\text{In}^{3+}$ -ion under the same conditions. Indium tartrate forms a precipitate in solutions with a ratio

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On the Tartrates of Indium

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(tartaric acid :  $\text{InCl}_3$ ) of  $n = 0.7$  and  $n = 1$ . The precipitate is amorphous and crystallizes only after several days. At  $n > 2$  the precipitate again dissolves. The analysis of the precipitates is given in table 3, the molar ratio between  $\text{C}_4\text{H}_4\text{O}_6^{2-}$  and  $\text{In}^{3+}$  is 1 : 1. Also the thermograms of the precipitates obtained at  $n = 0.7$  and  $n = 2$  (Figs 7,8) prove the same character of the precipitates. Tables 4 and 5 show the analyses of precipitates which were dried above  $\text{P}_2\text{O}_5$ . The  $\text{OH}^-$  content determined by difference is 0.65 instead of 1, so that the formation of a dimer with the elimination of water is assumed. A comparison with the tartrates of aluminum and gallium shows that indium differs from these elements by complex formation in stages. A salt of little solubility is formed, which dissolves in the excess of tartrate. The oxy groups of the tartrate participate in complex formation. There are 8 figures, 5 tables, and 6 references, 4 of which are Soviet.

SUBMITTED:  
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- April 8, 1958

ZVYAGINTSEV, O.Ye.; GONCHAROV, Ye.V.

Interaction of neodymium chloride with glycine. Zhur. neorg.  
khim. 7 no.8:1880-1891 Ag '62. (MIRA 16:6)

(Neodymium chloride) (Glycine)

ZVIAGINTSEV, O.Ye.; GONCHAROV, Y. V.

Interaction of neodymium chloride with  $\alpha$ -alanine. Zhur.  
neorg. khim. 7 no.8:1892-1901 Ag '62. (MIRA 16:6)

(Neodymium chloride) (Alanine)